**What is claimed is:**

1. A system for biostimulation comprising:

at least one coherent light source of a suitable wavelength;

at least one oligomode optical waveguide coupled to said source, wherein said waveguide has a low mode transmission at said wavelength; and

at least one means to selectively leak irradiation of said wavelength from at least one preselected position along a length of said waveguide so that biological tissue and organisms are caused to be stimulated.

2. The system of claim 1 wherein said means to selectively leak radiation is selected from the group consisting of evanescent wave decouplers, optical gratings, reflective layers, and modifications of said oligomode fiber optic waveguide by laser ablation, chemical etching, ion implantation, and addition of chemical dopants.

3. The system of claim 1 wherein said oligomode optical waveguide is a cladded optical fiber.

4. The system of claim 1 wherein said oligomode optical waveguide has multiple said means to selectively leak radiation from multiple positions along a length of said waveguide.

5. The system of claim 1 wherein said oligomode optical waveguide has substantially greater than one position along a length of said waveguide to selectively leak radiation.

6. A method of biostimulation of organic tissue comprising the steps of:

a) choosing an oligomode transmission fiber having at least one means to selectively leak radiation from at least one preselected position along the length of said fiber;

b) placing said oligomode transmission fiber in close proximity to said organic tissue at desired treatment sites, and wherein said means to selectively leak radiation are positioned at said desired treatment sites;

c) activating a coherent light source at a proximal end of said fiber; and

d) selectively leaking radiation from said source through said at least one means to selectively leak radiation from at least one preselected position along a length of said fiber.

7. The method of claim 6 wherein step a is accomplished by choosing a cladded waveguide, which can selectively leak radiation along its length.

8. The method of claim 6 wherein step d is accomplished by selectively leaking radiation through at least one evanescent wave decoupler positioned along at least one preselected position along a length of said fiber.

9. The method of claim 6 wherein said irradiation according to step c is continuous.

10. The method of claim 6 wherein said irradiation according to step c is intermittent and controlled by a timer mechanism.

11. The method of claim 6 wherein said biostimulation of organic tissue is for enhanced healing of a large wound, and wherein said steps comprising said method are more specifically:

a) selecting said oligomode fiber for a chosen wavelength for biostimulation;

b) placing a length of said oligomode fiber on said wound prior to covering said wound and said fiber with a dressing; and

c) transmitting light from a coherent light source through said oligomode fiber to deliver biostimulating radiation to said wound.

12. The method of claim 6 wherein said biostimulation of organic tissue is for enhancing seed germination and growth, and wherein said steps comprising said method are more specifically:

a) selecting said oligomode fiber capable of transmitting a chosen wavelength for biostimulation;

b) placing said means to selectively leak radiation from said oligomode fiber at a desired planting interval along said fiber;

c) placing a length of said oligomode fiber along side seeds below grade during planting;

d) transmitting coherent light from said light source through said oligomode fiber to deliver biostimulating radiation to said seeds.

13. The method of claim 6 wherein said biostimulation of organic tissue is for enhancing animal fertility and growth, and wherein said steps comprising said method are more specifically:

a) selecting said oligomode fiber capable of transmitting a chosen wavelength for biostimulation;

b) placing said means to selectively leak radiation from said oligomode fiber at desired intervals along said fiber;

c) placing a length of said oligomode fiber in association with the floor of an animal storage facility;

d) transmitting coherent light from said coherent light source through said oligomode fiber to deliver biostimulating radiation to animals in said animal storage facility.

14. The method of claim 6 wherein said biostimulation of organic tissue is for enhancing growth of seedlings, wherein said steps comprising said method are more specifically:

a) assembling a bundle of said oligomode fibers of a length sufficient to traverse a planting area;

b) locating said bundle of oligomode fibers across said planting area,

c) directing individual oligomode fibers out of said bundle at desired planting intervals, said individual fibers having said means to selectively leak radiation from said individual oligomode fibers ;

d) placing said individual fiber along with a seedling into the soil , and

e) transmitting coherent light from a light source through said oligomode fibers to deliver biostimulating radiation to said seedlings.